

CLAIM AMENDMENTS

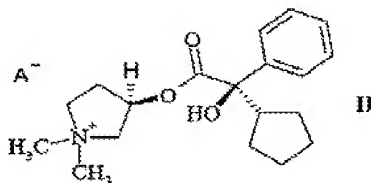
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-12. (canceled)

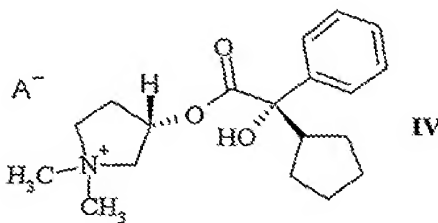
Claim 13 (currently amended): A process for the isolation

a) of the 3R,2'R stereoisomer of glycopyrronium bromide or iodide (formula II: A=Br or I),



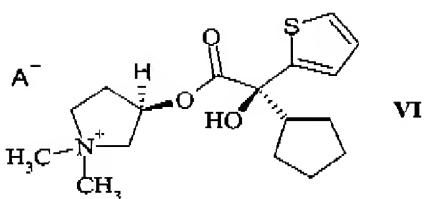
or

b) of the 3S,2'S stereoisomer (formula IV: A=Br or I),



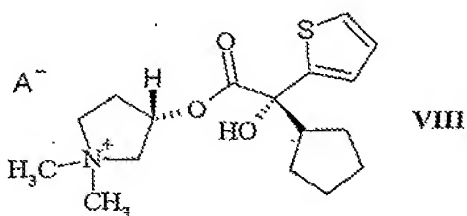
or

c) of the 3R,2'S stereoisomer of the thienyl analog of glycopyrronium (formula VI: A=Br or I),



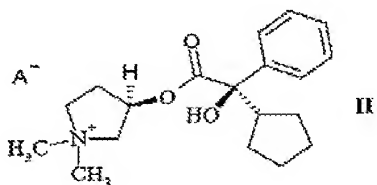
or

d) of the 3S,2'R stereoisomer (formula VIII: A=Br or I),

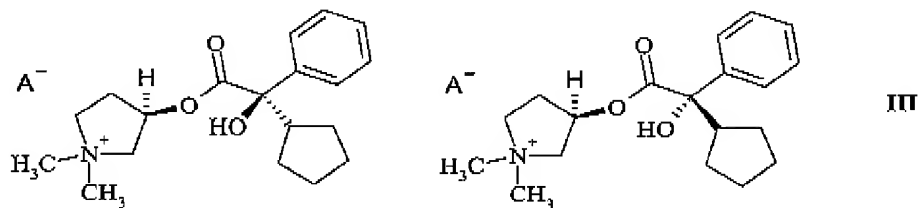


where

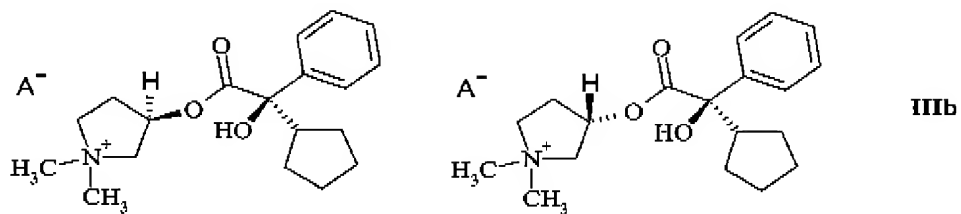
a) for the isolation of the 3R,2'R stereoisomer of glycopyrronium bromide or iodide (formula II: A=Br or I),



the diastereomer mixture consisting essentially of the 3R,2'R isomer and 3R,2'S isomer (formula III)

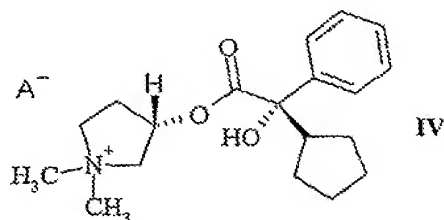


or the diastereomer mixture consisting essentially of the 3R,2'R isomer and 3S,2'R isomer (formula IIIb)

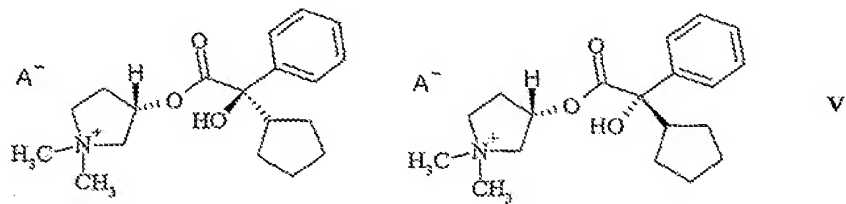


or

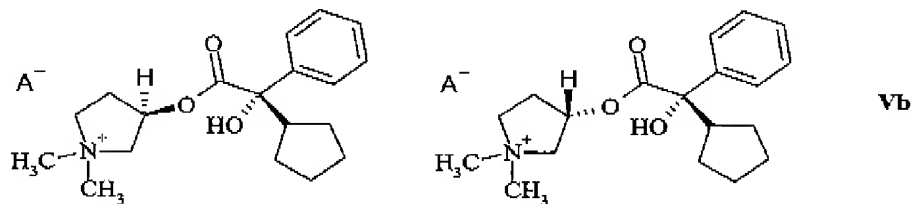
b) for the isolation of the 3S,2'S isomer (formula IV: A=Br or I),



the diastereomer mixture consisting essentially of the 3S,2'R isomer and 3S,2'S isomer (formula V)



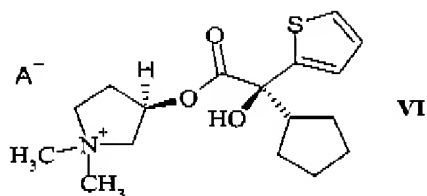
or the diastereomer mixture consisting essentially of the 3R,2'S isomer and 3S,2'S isomer (formula Vb)



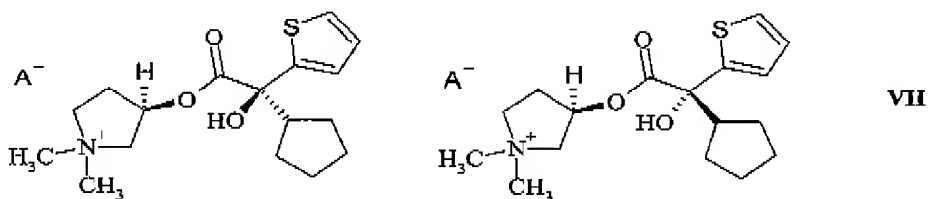
or

c) for the isolation of the 3R,2'S stereoisomer of the thienyl analog of

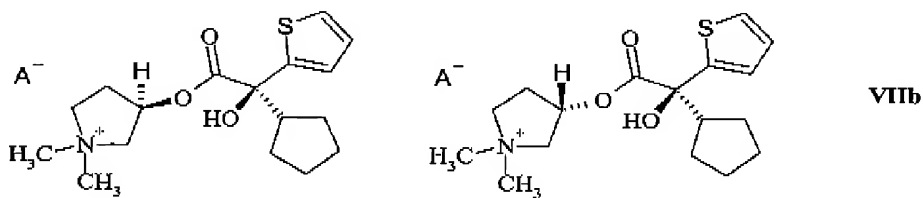
glycopyrronium (formula VI: A=Br or I),



the diastereomer mixture consisting essentially of the 3R,2'S isomer and 3R,2'R isomer (formula VII)

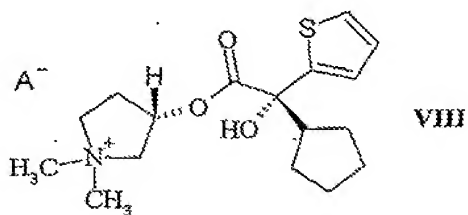


or the diastereomer mixture consisting essentially of the 3R,2'S isomer and 3S,2'S isomer (formula VIIb)

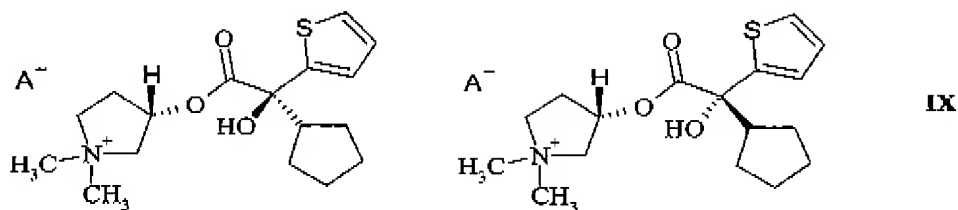


or

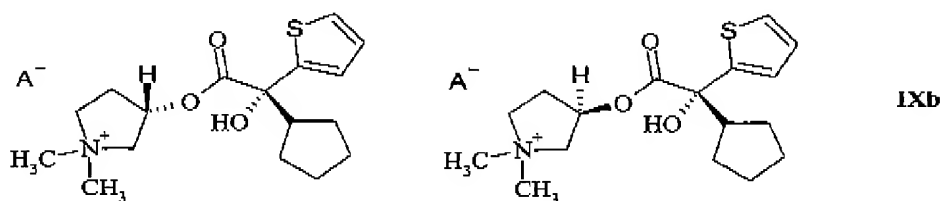
d) for the isolation of the 3S,2'R isomer (formula VIII: A=Br or I),



the diastereomer mixture consisting essentially of the 3S,2'S isomer and 3S,2'R isomer (formula IX)



or the diastereomer mixture consisting essentially of the 3S,2'R isomer and 3R,2'R isomer (formula IXb)



is combined for re-crystallizing and the stereoisomer to be isolated in each case is precipitated and obtained in enriched form, wherein a solvent is selected from the group consisting of branched and unbranched alcohols having one to four carbon atoms, acetone, butanone and acetonitrile in each case in the precipitate being used, and/or for the preparation of those tertiary, basic diastereomer mixtures are employed in the quaternization which lead to the abovementioned quaternary diastereomer mixtures a solvent is selected from the group consisting of branched and unbranched alcohols having one to four carbon atoms, acetone, butanone and acetonitrile in which the diastereomer mixture dissolves readily in said solvent, and said solvent consisting of branched and unbranched alcohols having one to four carbon atoms is preferably methanol, ethanol, or combinations thereof, and the stereoisomer to be isolated in each case is ~~obtained in enriched form as a precipitate precipitated after the reaction~~ to be obtained in enriched form, a first solvent selected from methanol and/or ethanol in which the diastereomer mixture

~~dissolves readily is used for the re-crystallization and~~ using a second solvent preferably selected from ethyl acetate and/or tert-butyl methyl ether causing crystallization ~~being used~~.

Claim 14 (previously presented). The process as claimed in claim 13, in which solvent having a water content not exceeding approximately 5% is used which leads to only the desired diastereomer being obtained in crystalline form, while the other diastereomer remains in solution or is obtained as an oil.

Claim 15 (original). The process as claimed in claim 13, in which the solvent used in the quaternization to give said diastereomer mixtures of the quaternary salts is isopropanol or acetone and thus said stereoisomers are isolated in enriched form in the resulting precipitate

Claim 16 (cancelled).

Claim 17 (cancelled).

Claim 18 (original). The process as claimed in claim 13, in which for the recrystallization the diastereomer mixture is dissolved in a heated solvent and crystallization takes place by cooling.

Claim 19 (original). The process as claimed in claim 18, in which the heated solvent is 2-propanol or ethanol.

Claim 20 (original). The process as claimed in claim 13 for the enrichment of the 3R,2'R isomer of glycopyrronium bromide.

Claim 21 (original). The process as claimed in claim 13 as a prepurification stage for obtaining a primary enrichment of diastereomers or, if enrichment has already taken place, to give a further increase in the diastereomer purity.

Claim 22 (cancelled).

Claim 23 (cancelled).

Claim 24 (original). The process as claimed in claim 13, a solvent having a water content of approximately 0.2-3%, being used in the recrystallization

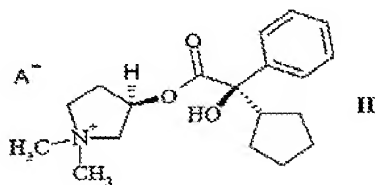
Claim 25 (previously presented). The process as claimed in claim 13, wherein the water content of the solvent is approximately 0.5-2%.

Claim 26 (previously presented). The process as claimed in claim 13, wherein the water content of the solvent is approximately 1%.

Claim 27 (original). The process as claimed in claim 24, wherein the water content of the solvent is approximately 0.5%.

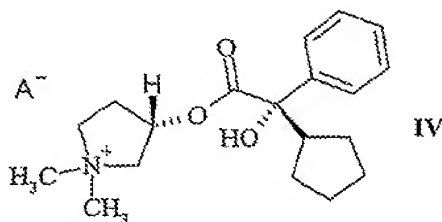
Claim 28 (previously presented). The process as claimed in claim 13, wherein the solvent is methanol, ethanol, or 2-propanol.

Claim 29 (original). The process as claimed in claim 13, wherein the 3R,2'R stereoisomer of glycopyrronium bromide or iodide (formula II: A=Br or I),



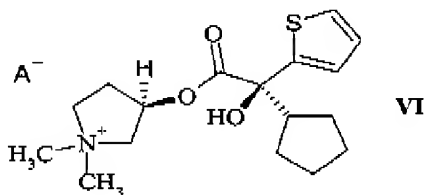
is isolated.

Claim 30 (original). The process as claimed in claim 13, wherein the 3S,2'S stereoisomer (formula IV: A=Br or I),



is isolated.

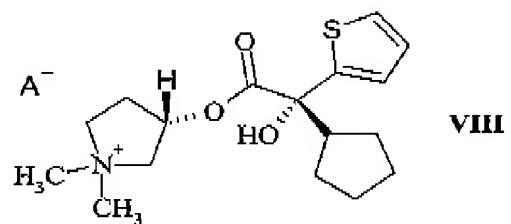
Claim 31 (original). The process as claimed in claim 13, wherein the 3R,2'S stereoisomer of the thienyl analog of glycopyrronium (formula VI: A=Br or I),



is isolated.

Claim 32 (original). The process as claimed in claim 13, wherein the 3S,2'R

stereoisomer (formula VIII: A=Br or I),



is isolated.